# Xinuo (John) Zhao
john.xinuo.zhao@gmail.com • (620)719-6954 • 3308 S Creek Dr. SE Apt 302, Kentwood, MI 49512

## WORK EXPERIENCE

**Product Engineer** (February 2017 – Present)
Pro-Vision Video Systems, Grand Rapids, MI
- Develop Web UI and Web Services for DVR system
  - o Parsing and serializing data between XML and HTML using JavaScript
  - o Parse XML provided by Web Services and RESTful APIs in Angular JS
  - o Build RESTful APIs using Node.js, Express, and MongoDB
- Collaborate with mechanical and industrial engineers on camera and DVR hardware development
  - o Specify product hardware and firmware features
  - o Review and modify schematics and PCB
  - o Support technicians on product troubleshooting and create test environment
- Work with domestic and foreign suppliers on system firmware development and hardware manufacturing

**Principal Hardware Engineer** (January 2016 – January 2017)
Medforall - Information Technology and Service, Columbus, OH
- Led hardware development, optimization, and validation; worked in a close interdisciplinary team
- Performed schematic capture, symbol creation, and PCB layout design of multiple devices
- Programmed environmental and motion sensor devices using Python and C

**Graduate Research Associate** (August 2015 – May 2016)
Department of Electrical & Computer Engineering, Ohio State University, Columbus, OH
- Researched sensor and monitoring technologies in healthcare, industrial, and environmental fields
- Managed microcontroller based projects for new graduate students' individual study and project management course

## EDUCATION

**The Ohio State University**, Columbus, OH                    GPA: 3.3
M.S. Electrical & Computer Engineering (embedded systems), Graduation: May 2016
**Pittsburg State University**, Pittsburg, KS                    GPA: 3.8
B.S. Electronics Engineering Technology, Minor Mathematics, Graduation: May 2014

## ACADEMIC ENGINEERING PROJECTS

**Airborne Soil Moisture Mapping**    OSU & MIT Lincoln Laboratory    (August 2014 – May 2016)
- Developed a microcontroller board for an airborne radiometer to collect position and altitude data
- Implemented the data handling system with an ARM Cortex-M4 MCU, ADC, BME280 Barometer, and GPS
- Designed the 4-layer PCB using Eagle and Cadence Allegro
**Wearable Health Monitoring Device**    OSU & Fuse by Cardinal Health    (June 2015 – May 2016)
- Developed a wearable device that monitors a user's health condition (heart rate, muscle tension, etc.)
- Designed the hardware (PCB) for the wearable device and participated in firmware development
**Temperature Monitoring System for OSU Airport**    OSU    (September 2015 – May 2016)
- Developed a monitoring system using i-Q350 sensors from Identec Solutions to test if the ambient temperature near airplane runway (in winter) is suitable for LED edge lights
**iTap Drink Dispensing System**  Pittsburg State University    (August 2013 – May 2014)
- Built an automatic drink dispensing system by implementing a microcontroller and PLC system controlled by a mobile application through Bluetooth, which led to the function of dispensing a certain amount of liquid after receiving orders

## QUALIFICATIONS
- Programming: HTML&CSS, JavaScript, Java, Python, C/C++, AngularJS, Node.js, ReactJS
- Software: Visual Studio, Eclipse, Android Studio, Xcode, Git, Eagle CAD, OrCAD and Allegro
- Experience with Android and iOS app development
- Experience with Web UI development for hardware system configuration
- Experience with developing on Linux and Windows platforms
- Hardware: MSP430, ARM Cortex M, BeagleBone, Intel Curie, Simblee, CC2650 SensorTag, XBee
- Ability to read and revise schematics and PCB layouts
- Hands-on prototyping skills including soldering, reflow and rework of PTH and SMD components
- Experience with hardware lab equipment such as digital scope and logic analyzer